

## **Phytochemical and antioxidant studies on dried leaves of *Crotalaria gajureliana* Gholave, Madhav & Gosavi**

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Receipt: 22.03.2025

Revised: 08.04.2025

Acceptance: 10.04.2025

DOI: 10.53552/ijmfmap.11.1.2025.196-203

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### **ABSTRACT**

*Crotalaria gajureliana* is a new plant species and its biological activity and phytochemical composition are unknown. Leaves are a renewable plant part, meaning they can be harvested without harming the plant or threatening its survival. The current study is an evaluation of the phytochemical profile, total phenolic content (TPC), total flavonoid content (TFC), along with antioxidant activity of dried leaves of *Crotalaria gajureliana* by successive solvent extraction. Analysis began with standard qualitative tests to confirm the presence of these phytoconstituents. The phytochemical analysis revealed that the extracts contained flavonoids, alkaloids, tannins, glycosides, and phenolic compounds. The methanol extract exhibited the highest levels of total phenolic and flavonoid content, followed by the aqueous extract, and then the ethanol extract. DPPH antioxidant activity here shows significant free radicals scavenging, where aqueous extract showed the highest inhibition percentage which can be explained by the higher levels of total phenolic and Flavonoid compounds.

**Keywords:** Antioxidant activity, *Crotalaria gajureliana*, phytochemicals, successive extraction, total flavonoid content, total phenolic content